

## **TABLE WITH WASTE RECEPTACLE**

### **BACKGROUND OF THE INVENTION**

[0001] The present invention relates to tables, and more particularly to a dining table, which provides diners with an easy access to a waste disposal receptacle.

[0002] Dining and picnic tables are usually configured with a homogenous top surface made of rigid material, such as wood, plastic and the like. The portable category tables usually have foldable or detachable legs that allow transportation of the table to a picnic site, beach or other temporary dining area.

[0003] In many areas where seafood is abundant, residents and tourists consume large amounts of shell seafood, such as small crustaceans, oysters, mollusks and other the like. It is not uncommon to see a dozen pounds of crawfish or oysters to be consumed at one sitting. Natural consequence of the food consumption is the creation of large amounts of waste in the form of shells, broken crab legs, and the like. The waste accumulates on the table surface making it uncomfortable for the diners to continue bringing more food to the table.

[0004] There exists, therefore, a need for a table that could be easily cleaned, without polluting the environment while removing the waste in a sanitary and expeditious manner from the top of the dining table.

### **SUMMARY OF THE INVENTION**

[0005] It is an object of the present invention to provide a table that can be used for dining at a variety of locations, both formal and informal.

[0006] It is another object of the present invention to provide a dining table that can be easily transported to a desired location and set up in an easy and expeditious manner.

[0007] It is a further object of the present invention to provide a dining table with a waste receptacle to allow continuous cleaning and removal of the waste from the table surface.

[0008] These and other objects of the present invention are achieved through a provision of through a provision of a table having a table top supported by one or more supporting legs. The legs may be adjusted in length by modular segments. The table top is provided with one or more openings, within which a waste receptacle is removably suspended. The waste receptacle is made of mesh material and forms a bag, which may be lined with a liquid impermeable bag to retain any waste liquid within the waste receptacle.

[0009] The table top may be formed as a single piece or as a foldable top, which folds along a center line. The fold edges of each table top half have a fold line. A plurality of openings are formed along the fold line in the vertical edge of the table portions for receiving securing pins, which facilitate retaining of the table top in a stable position when the top is unfolded. A flexible strip is detachably positionable along the fold line on the bottom of the table top to further ensure stability of the unfolded table top.

[0010] Each opening of the table top is provided with a removable cover, which when installed over the opening, extends flush with the table top upper surface. As a result, the table may be used as a conventional table or as a table with waste receptacle for retaining shells, broken crab legs and other such waste.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0011] Reference will now be made to the drawings, wherein like parts are designated by like numerals, and wherein

[0012] Figure 1 is a top schematic view of the foldable table in accordance with the present invention.

[0013] Figure 2 is a perspective view of the table of the present invention with the waste receptacles removed for clarity, and showing modular legs elevating the table surface.

[0014] Figure 3 is a perspective view of the table of the present invention with the waste receptacles removed for clarity and showing modular legs of reduced height.

[0015] Figure 4 is a side view of the table showing waste receptacles suspended from the table top.

[0016] Figure 5 is a top view of the table top showing multiple openings for waste receptacles.

[0017] Figure 6 is a detail view of an opening of a waste receptacle showing an exemplary location of waste bag retaining members extending into the opening.

[0018] Figure 7 is a detail view illustrating the bottom of the cover showing locking latches and a support bar.

[0019] Figure 8 is a detail side view of the cover with the latches in a locking position.

[0020] Figure 9 is a detail view of a locking latch for use in the cover of Figures 7 and 8.

[0021] Figure 10 is a detail view showing an exemplary positioning of mesh bag retaining members in a smaller size opening.

[0022] Figure 11 is a detail view showing positioning of mesh bag retaining hooks in a larger waste receptacle opening.

[0023] Figure 12 is a top view of the table top in accordance with the present invention in folded position.

[0024] Figure 13 is a detail view showing fold edges of the table top portion with hinges attached.

[0025] Figure 14 is a detail side view of the table showing engagement of the cover with a table top, with latches in a locked position.

[0026] Figure 15 is a detail view of the modular leg for use with the table of the present invention.

[0027] Figure 16 is a detail view showing a waste receptacle for use with the table of the present invention.

[0028] Figure 17 is a detail view showing a pin for retaining the table top in an unfolded position.

#### DESCRIPTION OF THE PREFERRED EMBODIMENT

[0029] Turning now to the drawings in more detail, numeral 10 designates the table in accordance with the present invention. As can be seen in the drawings, the table 10 comprises a table top 12 supported by a plurality of upright legs 14. The tabletop 12 has an upper surface 16 and a bottom surface 18. At least one opening 20 is formed through the tabletop 12 extending from the top surface 16 to the bottom surface 18. In the embodiment shown in Figures 1-17, the table top 12 is provided with five openings: a central opening 20, and four peripheral openings 22.

[0030] Each opening 20 and 22 is defined by a large diameter upper part 24 (Figure 14) and a reduced size lower part 26. A peripheral lip 28 extends in parallel between the top surface 16 and the bottom surface 18 of the tabletop 12 and divides the opening into the part 24 and 26. Although the openings 20 and 22 are shown to have a square configuration, it is envisioned that other configurations can be used, such as round, rectangular, triangular, etc., depending on the design choice.

[0031] Each of the openings 20 and 22 is selectively closed with a cover 30. The cover 30 has an upper portion 32, which is configured to fit within the respective opening 20 or 22 and cover the upper part 24 of the opening. The cover 30 also has a smaller size portion 34, which is configured to fit within the lower part 26 of the opening 20 or 22. The upper portion 32 of the cover 30 fits flush with the upper surface 16 of the tabletop 12, while resting on the lip 28. The lower portion 34 of the cover 30 extends between the lip 28 and the bottom surface 18, with a bottom surface 36 of the cover 30 extending generally flush with the bottom surface 18 of the tabletop 12.

[0032] Each cover 30 is provided with a pair of locking latches 40 secured to a support bar 38 fixedly attached to the bottom 36 of the cover 30. The support bar 38 extends across the bottom surface 36 of the cover 30. The latches 40 move pivotally about axis A (Figure 9) extending through the center of an attachment member 42 of the latch 40. The locking element 46 of the latch 40 extends in a parallel relationship to a longitudinal axis of the support bar 38 when the latch is in a locking position. The locking element 46 extends in a transverse relationship to the longitudinal axis of the support bar 38 when the latch 40 is an unlocked position allowing the cover 30 to be removed from the tabletop 12.

[0033] When the covers 30 are fitted into the tabletop 12, the top surfaces of the covers 30 extend in a generally co-planar relationship to the top surface 16 of the table top 12. The table 10 can then be used as a regular table, covered with a table cloth or left uncovered and used for dining, as a work surface, or for any other desired activity. When the covers 30 are removed, the openings 20 and 22 are uncovered, allowing access to waste receptacles secured to the table top 12.

[0034] The tabletop 12 may be formed as a unitary top, similar to the top shown in Figure 2 or as a foldable tabletop similar to the tabletop shown in Figure 3. When the foldable tabletop 12 is used, the two portions 42 and 44 of the tabletop 12 fold about hinges 46 (Figure 13) secured to a bottom surface 18 of the tabletop 12. The adjacent fold edges 56 of the table portions 42 and 44 are cut at an angle such that a V-shaped cut out 48 is formed along the adjacent edges 56. A protective strip 50 is fitted in a generally covering relationship over the V-shaped cutout 48 to protect the underside of the table and facilitate stability of the unfolded tabletop 12.

[0035] To further ensure structural strength of the tabletop 12 when in an unfolded position, the present invention provides for the use of securing pins 52 (Figure 17) which are configured as cylindrical bodies. Four openings 54 are formed in the fold edge 56 of each portion 42 and 44 of the tabletop 12. The openings 54 extend a distance into the body of the tabletop 12 to a depth equal to approximately  $\frac{1}{2}$  of the length of the pin 52. Before the tabletop is open from its normally folded position, the pins 52 are inserted into four of the openings 54 of either tabletop portion 42 or 44. As the tabletop 12 is opened by pivoting the hinges 46, the free ends of the pins 52 gradually move into aligned openings 54 of the opposite portion of the tabletop 12 until they become embedded within the opposite openings 54. The pins 52 provide additional support along the hinge line 58, further ensuring that the tabletop 12 does not collapse under the weight of items placed close to the fold line 58 of the tabletop 12.

[0036] Turning now to Figures 10 and 11, the waste receptacle engagement members can be seen in more detail. As shown in the drawings, a plurality of hooks 60 is secured to the tabletop 12 within each of the openings 20 and 22. Depending on the size of the opening, the number of hooks can be increased with the increased size of the opening. For instance, if the

opening 22 is about 6 inches by 6 inches, it is envisioned that eight hooks 60 are sufficient for retaining the waste receptacle within the opening 22. If the opening 20 is formed as a 12 by 12 inch opening, it is envisioned that three or four hooks 60 for each side of the opening 22 are sufficient for retaining the waste receptacle within the opening.

[0037] A schematic orientation and position of the hooks 60 in a larger size opening 20 is also illustrated in Figure 6, wherein two hooks 60 are secured on each side of a center line 62 and wherein three hooks 60 are secured on opposite walls of the opening 20. Of course, fewer or more hooks 60 may be employed in a particular design of the table depending on the strength of the netting used for the waste receptacles. A waste receptacle 64 is suspended on the hooks 60 within an opening 20. Smaller waste receptacles 66 are suspended on the hooks 60 within smaller peripheral openings 22.

[0038] Each waste receptacle 64 or 66 is formed as a mesh bag provided with reinforcement rings 68 about an upper peripheral edge 70 of the bag. The reinforcement rings 68 define openings 72 which are suitable for engaging with the hooks 60 and suspending the bags 64, 66 within the openings 20 and 22, respectively. As can be seen in Figure 4, the bags 64 and 66 extend below the bottom surface 18 of the countertop 12 and provide ready containers for receiving shells, broken claws, and other waste generated by the dining company using the table 10. When necessary, a liquid impermeable flexible liner (not shown) can be inserted within the waste receptacles bags, 64, 66, to prevent liquids from the waste shells from reaching the floor or the ground. The waste bags may be collected after the meal and disposed in a conventional manner. After the receptacles 64 and 66 become full or at other times during the meal, the receptacles 64, 66 can be emptied by simply pulling up the bags 64, 66 with the associated liner and emptying the waste into a conventional garbage disposal can or trash bag.

[0039] The height of the tabletop 12 from the base surface of the floor or ground can be adjusted by the modular legs 14. Each leg 14 has a top part 80 provided with a threaded upper end 82 which engages within an opening 84 formed in the bottom surface 18 in each corner of the tabletop 12. The openings 84 have internal threads (not shown) that match the threads in the upper end 82 of the top part 80 of the leg 14. If the tabletop 12 needs to be elevated to, for instance, a bar top level, the modular legs 14 can be extended with the use of a bottom part 86 which attaches to the top part 80 through a connector 88. The bottom part 86, similarly to the top part 80 is provided with a threaded upper end 90, which fits into an opening 92 formed in the bottom of the connector 88. The opening 92 is formed with inner threads (not shown) to match the engaging threads of the upper end 90 of the leg part 86.

[0040] The connector 88 is similarly provided with a threaded end 94, which is designed to engage threads formed in the opening 96 of the top part 80 of the leg 14. As can be seen in Figure 12, when the top part 80 is engaged with the bottom part 86, the connector 88 extends between the portions of the modular legs, raising the top surface 16 of the table 10 to a desired level. If only a small elevation of the tabletop 12 is necessary, it is envisioned that the top part 80 may be used with a shorter connector 88 without the bottom portion 86. If desired, the bottom portion 86 may be provided with a rubber cap 98 that can be used for covering the opening 96 or 92 of the portions 80 and 88, respectively depending on which portion of the leg 14 sits on the ground or on the floor.

[0041] Of course, the shape of the tabletop 12 and the number of legs 14 for each table 10 can differ, depending on the design of the table. The tabletop 12 may be made round or triangular, depending on the design of choice, and the number of openings 22 can range from one and more. In some cases, it may be preferred to have one central opening 20 on the table,



especially if the table has a small size, allowing a small number of people to sit around the table and use the same waste receptacle. A large size table suitable for accommodating a greater number of people may be provided with five openings 20,22, similarly to the embodiment shown in Figures 2 and 3. Alternatively, the tabletop 12 may be configured with only peripheral openings 22 without the central opening 20.

[0042] If desired, a reinforcement border 100 can be made above the periphery of the tabletop 12 to further enhance structural integrity of the table. It is envisioned that for a table having a size of about three feet per one side, the openings 22 can be made six inches wide, and the opening 20 can be made 12 inches in size. Of course the dimensions of the openings will differ depending on the overall size and scale of the table. The height of the table can be adjusted anywhere between 18 inches to 30 inches or greater as desired by a particular manufacturer.

[0043] The table 10 may be used in a restaurant or less formal setting, with a non-foldable embodiment of the tabletop 12 perhaps being more desirable for a restaurant setting. A portable version with a foldable tabletop 12 is envisioned for use in less formal settings, such as picnics, beaches, parks, etc. When the table 10 is used for meals that do not involve disposal of large amounts of shells, crab legs and the like, it is envisioned that covers 30 can be used to form a uniform, uninterrupted planar surface. In such cases, the waste receptacles 64 and 66 would not be used and the tabletop 12 may be covered with a tablecloth to conceal the covers and the openings.

[0044] When transporting the table to the beach or picnic area, the legs 14 may be completely disengaged and stored next to the tabletop12, which can be folded for ease of transportation and placed in a trunk of a car or in a truck bed.

[0045] Many other changes and modifications may be made in the design of the present invention without departing from the spirit thereof. We, therefore, pray that our rights to the present invention be limited only by the scope of the appended claims.